



tell me how...

to configure and order AVAYA MultiVantage products off the shelf.

Version 1.1





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Version 1

how to use this manual...

This product guide has been developed to assist you when ordering the parts required to assemble an Avaya MultiVantage system. The first two sections: Platform Overview and Media Modules provide key information to assist in part selection.

The Platform Overview provides you with useful data to begin configuring a system. Relevant Crane part numbers are clearly visible within each of the product sections.

Media Modules details the key modules that are needed to plug into the gateways outlined in the Platform Overview. Relevant part numbers are clearly visible throughout this section.

The third and final section: Tell me how...contains answers to your common configuration questions and assists you in adding features to the product bundles listed in this guide.



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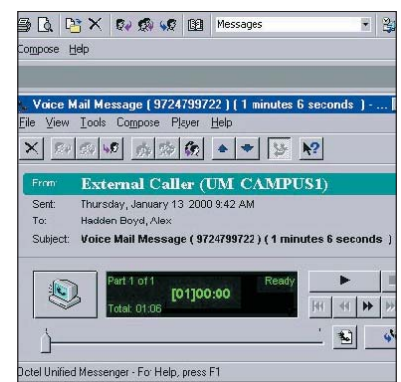
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G350 Media Gateway Overview

Introduction

Crane Part: PG350

The G350 is a high-performance converged telephony and networking device that sits in a small branch location, providing all infrastructure needs in one box - telephone exchange and data networking. The G350 is designed for use in a 16-24 user environment, but can support up to 40 users. The G350 features a VoIP engine, WAN router, and Power over Ethernet LAN switch, and provides full support for legacy digital and analogue telephones.

The G350 integrates seamlessly with Avaya Media Servers S8700, S8500, and S8300, running Avaya Communication Manager call processing software to provide the same top quality telephony services to the small branch office as to the headquarters of the organization. The Media Server can be located at the headquarters and serve the G350 remotely.

The G350 can optionally house an internal Avaya S8300 media server as a local survivable processor or as the main media server for standalone deployment.

In addition to advanced and comprehensive telephony services, the G350 provides full data networking services, precluding the need for a WAN router or LAN switch.

A LAN media module (MM314) with PoE standard compliant Ethernet ports provides support for IP telephones as well as all other types of data devices. A range of telephony modules provides full support for legacy equipment such as analogue and digital telephones.

Physical description and configuration

Figure 1: G350 Media Gateway



The chassis features:

- Six media module slots, V1 to V6.
- Fixed ports and buttons, including embedded analogue media module V7.

See slot configuration on Table 1 below



Table 1: Supported media modules and slot configuration

(Please see the Media Modules section for more detail)

Media Module	Description	Permitted slots (See figure 1)	Crane Part
Media Server: S8300	Media server	V1	P8300
Telephony media modules: MM711 MM714 MM312 MM712 MM710 MM720 MM722	8 universal analogue ports 4 analogue telephone ports and 4 analogue trunk ports 24 DCP telephone ports 8 DCP telephone ports 1 T1/E1 ISDN PRI trunk ports 8 ISDN BRI trunk ports 2 ISDN BRI trunk ports	V1,V2,V3,V4,V5 V6 V1,V2,V3,V4,V5 V1,V2,V3,V4,V5 V1,V2,V3,V4,V5 V1,V2,V3,V4,V5	P83ACP PM312 P83DCP P83E1 P83BRI POA
WAN media modules: MM340 MM342	1 E1/T1 WAN port 1 USP WAN port	V2,V3,V4,V5 V2,V3,V4,V5	PM340 PM342
LAN media modules: MM314	24 10/100 Ethernet ports with Power over Ethernet (PoE)	V6	PM314

Table 2: G350 Dimensions and specifications

Description	Value
Height	133.3 mm
Width	482.6mm
Depth	400mm
Weight of chassis	9-10Kg
Ambient working temperature	0-40°C
Front clearance	30cm
Rear clearance	45cm
Humidity	20-60% relative humidity
Power rating	100-240 V~, 7 A Max, 50-60 Hz.



Table 3: G350 Capacities

Description	Capacity	Comments
Maximum number of G350 Media Gateways controlled by an external S8300, S8500 or S8700 media server	250	This number also applies if a combination of Avaya G700 Media Gateways and G650 Media Gateways are controlled by the same external media server
Maximum number of G350 Media Gateways controlled by a S8300 media server installed in an external media gateway	50	
Maximum total number of telephones supported by the G350	40	
Maximum number of IP Telephones	40	Limited by the number of VoIP resources used and the calling patterns (VoIP to VoIP conferencing, VoIP to non-VoIP etc.)
Maximum number of analogue phones	18	
Maximum number of DCP Phones	24	
Maximum number of DCP and analogue phones	26	Using the 24 DCP ports on an MM312 DCP media module, the 8 analogue ports on an MM711 media module, and the two built-in LINE ports on the chassis front panel for the analogue phones.
Simultaneous two-way conversations from IP phone to legacy telephone or trunk.	32 - G.711 16 - G.729a/G723	Simultaneous two-way conversations limited by the VoIP engine, including call progress tones.
Transcoding from G.711 to G.729 for IP phones	16	Simultaneous 2-way conversations
Transcoding from TDM phones to G.729 IP phones	16	Simultaneous 2-way conversations. The quantity of 16 applies to conversations where one end of each conversation is on a G350 and transcoding occurs for that endpoint on the G350. If transcoding must occur on both ends of the conversation, the quantity of conversations is 10.
Maximum number of PSTN Trunks	17 (analogue) 15 (digital)	
Fax capacity	8	Simultaneous fax transmissions using VoIP Resources
Touch-tone recognition (TTR)	15	
Tone Generation	15	
Announcements (VAL)	6 Playback, 1 Record	



Compatible Avaya Telephones:

Description	Crane Part
IP Telephones	
4601 IP telephone	P4601-G
4602 IP telephone	P625
4602SW IP telephone	P625SW
4610SW IP telephone	P4610SW
4620SW IP telephone	P4620SW-G
4630SW IP telephone	P637SW
IP SoundPoint conference phone	BNP4690
Digital Telephones	
2402 Digital telephone	P667
2420 Digital telephone	P665
6402 Digital telephone	P641
6408D+ Digital telephone	P643
6416D+M Digital telephone	P645
6424D+M Digital telephone	P647
Callmaster IV Digital telephone	P250
Callmaster V Digital telephone	P244
Callmaster VI Digital telephone	P246
302D attendant console	BNP201A
Analogue Telephones	
Avaya analogue basic	P658
Avaya analogue handsfree	P659

G350 – Crane product bundles

P8300G3 - S8300/G350 Bundle

Bundle Components:

Description	QTY
LINUX MEDIA SERVER MODEM	1
CC R 2.0	1
INTGR MGMT 2.0 STD	1
CM2 ENTERPRISE INTRO PER USER SFTW LIC	1
CM2 INTL DOC HP/G350	1
CM2 S8300 w/G350 SFTW LIC	1
PWR CORD 98IN UNITED KINGDOM 14012	1
PWR UPS 4-POST RACK KIT	1
S8300B MEDIA SERVER	1
LOCALIZATION KIT UK	1
G350 MEDIA GATEWAY	1
S8300 CD ROM DRIVE	1
S9RM MODEL 1000VA 230V W/SNMP	1
CM2.0.1 LINUX UNITY SFTW CD W/RTU	1

Please note that the above bundle includes one CM2 Enterprise user software license. Please see the Tell Me How section in this product guide to order additional software licenses.

S8300/G700 Platform Overview

Introduction

An Avaya S8300 Media Server with a G700 Media Gateway and its media modules converges voice and data into one infrastructure. Using the same form factor as a media module, an S8300 Media Server is a Pentium-based processor residing in a G700 Media Gateway. An S8300 Media Server can also be configured as a Local Survivable Processor (LSP). A G700 Media Gateway is based on an Avaya P330 switch, which contains VoIP resources and modular interface connectivity. The media modules provide analogue, digital, T1/E1, BRI, and additional VoIP capabilities.

The following figure shows an S8300 Media Server and media modules in a G700 Media Gateway.

Figure 2: S8300 Media Server, G700 Media Gateway, and media modules



S8300 Media Server

Crane Part: P8300

The S8300 Media Server is a Pentium-based processor that runs on a Linux operating system and resides in slot V1 of the G700 Media Gateway. It comes standard with the following:

- Avaya Terminal Emulator: An administration tool that provides terminal emulation capabilities and a variety of connectivity options you can save and reuse
- A 20GB hard disk
- 256 MB RAM (the S8300B version, when available, will have 512 MB)
- A WEB server used for the following:
 - Backup and restore customer data - Backup and restore customer data
 - Installation and upgrades of software and firmware
 - Easy access to view current alarms
 - The ability to perform server maintenance including busy out and release busy out, shutdown, and status of the S8300 Media Server
 - Security commands that will enable and disable the modem, start and stop FTP server, and view the software license



- SNMP access to configure trap destinations, and stop and start the master agent
- S8300 Media Server configuration information and upgrade access
- Download of the Avaya Terminal Emulator from the S8300 Media Server to a PC on the LAN
- Linux operating system (Redhat)
- Interface for IA770 INTUITY AUDIX Messaging
- Trivial File Transfer Protocol (TFTP) server
- H.248 Media Gateway Signalling Protocol
- Control messages tunnelled over H.323 Signalling Protocol Main Components
- Two USB ports for modem connections
- One services port
- SNMP alarming
- Support for remote call out alarming

Figure 3: S8300 Media Server



G700 Media Gateway

Crane Part: PG700

The G700 Media Gateway is designed to offer options and provide scalability. It is functional on its own or with other G700 Media Gateways. A maximum of 50 G700 Media Gateways can be supported using the S8300 Media Server. A maximum of 250 G700 Media Gateways can be supported using the S8500 or S8700 Media Servers. The G700 is also functional in a stack of G700s mixed with Avaya P330 devices such as the P333T, P333R, and P334.

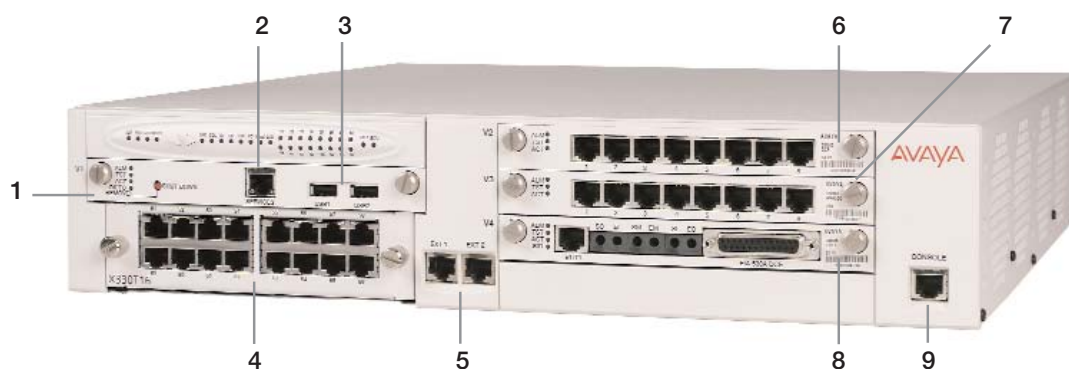
The following list describes the basic architecture of the G700 Media Gateway:

- A serial port for command line access
- 2 standard 10/100 Ethernet Interface ports
- Four Media Module slots
- One Avaya P330 expansion module slot
- One slot for the Avaya P330 Octaplane stacking fabric
- A LED board that indicates system level status



- Intel i960 controller that hosts all the base switch control and management software
- A VoIP engine that supports up to 64 G.711 single channel calls
- Eight port layer 2 switch
- 15 ports of tone detection
- Internal global AC power supply that provides low voltage DC power to the fans, Motherboard and Media Modules
- Four internal fans provide cooling for the internal components
- Fits in a EIA-310-D standard 19 inch rack
- Can sit on a desk top

Physical description and configuration



Number	Description
1	The S8300 Media Server in slot V1
2	Services port
3	Two USB ports
4	Avaya Expansion Module Slot
5	Dual 10/100Base-T switch ports

Number	Description
6	Media Module slot V2
7	Media Module slot V3
8	Media Module slot V4
9	Console connection

Table 4: Supported media modules and slot configuration

(Please see the Media Modules section for more detail)

Media Module	Description	Permitted slots	Crane Part
Media Server:			
S8300	Media server	V1	P8300
Telephony media modules:			
MM710	1 T1/E1 ISDN PRI trunk ports	V2,V3,V4	P83E1
MM711	8 universal analogue ports	V2,V3,V4	P83ACP
MM712	8 DCP telephone ports	V2,V3,V4	P83DCP
MM720	8 ISDN BRI trunk ports	V2,V3,V4	P83BRI
MM760	64 channel VoIP (G711)	V2,V3,V4	P83VoIP
MM717	24 DCP telephone ports	V2,V3,V4	PM717

Table 5: S8300 Capacities

Description	Capacity
Number of users per S8300	450
Number of trunks per S8300	450
Total Endpoints (Trunks and Users) per S8300	900
Media Gateways per S8300	50
LSPs per S8300	10
Media Gateways per LSP	50
Announcement sources per S8300	50
Busy Hour Calls (Maximum, non-call centre)	10,000
Busy Hour Calls (Maximum, call centre)	5,000
Locations	50



Compatible Avaya Telephones:

Description	Crane Part
IP Telephones	
4601 IP telephone	P4601-G
4602 IP telephone	P625
4602SW IP telephone	P625SW
4610SW IP telephone	P4610SW
4620SW IP telephone	P4620SW-G
4630SW IP telephone	P637SW
IP SoundPoint conference phone	BNP4690
Digital Telephones	
2402 Digital telephone	P667
2420 Digital telephone	P665
6402 Digital telephone	P641
6408D+ Digital telephone	P643
6416D+M Digital telephone	P645
6424D+M Digital telephone	P647
Callmaster IV Digital telephone	P250
Callmaster V Digital telephone	P244
Callmaster VI Digital telephone	P246
302D attendant console	BNP201A
Analogue Telephones	
Avaya analogue basic	P658
Avaya analogue handsfree	P659

S8300/G700 – Crane product bundles

P6001CM2 – esIP Evolution2 (S8300/G700 Bundle)

The esIP Evolution 2 is an excellent starter bundle providing significant discount on the normal RRP.

Bundle Components:

Description	QTY
LINUX MEDIA SERVER MODEM	1
CC R 2.0	1
IP SOFTPHONE R5 RTU ONE LIC	5
INTGR MGMT 2.0 STD	1
CM2 S8300 W/G700 SFTW LIC	1
CM2 ENTERPRISE INTRO PER USER SFTW LIC	50
CM2 TDM TRUNK PORT SFTW LIC	30
CM2 INTL DOC S8300/S8500/S8700	1
IA770 CLIENT APPL LIC 1 SGL SITE VMAIL	50
PWR CORD 98IN UNITED KINGDOM 14012	1
S8300B MEDIA SERVER	1
S8300 CD ROM DRIVE	1
CM2.0.1 LINUX UNITY SFTW CD W/RTU	1
MM710 E1/T1 MMOD GRAY	1
G700 R3 AC/DC MEDIA GATEWAY GRAY	1
IA 770 SFTW APPL & MISC SFTW KIT R1.3	1

Please see the Tell Me How section in this product guide to order additional software licenses.

S8500/G650 Platform Overview

Introduction

The Avaya S8500 Media Server is a simplex server that allows for a distributed enterprise over an IP infrastructure in the mid-market space (up to 3200 ports). The Avaya S8500 Media Server brings all of the robust performance and rich feature set of Avaya Communication Manager Release 2.0 onto an industry standard processor running an industry standard operating system. This processing engine drives the switching fabric of the system. The S8500 Media Server is a Pentium 4 server running Linux operating system. The simplex S8500 Media Server is 1 U high and fits into a 19" four-post data rack.

In new system sales, the S8500 Media Server will be sold with the G650 Media Gateway as well as with the G700 and G350 Media Gateways. Customers that are currently on Avaya legacy systems such as the DEFINITY Server SI, R (Direct Connect only – no Center Stage Switch), CSI and S8100 can easily migrate to the S8500 Media Server and maintain their current Media Gateways (e.g.: CMC1, SCC1, MCC1, G600). The S8500 Media Server supports IP Port Network Connectivity for new sales and Direct Connect for SI/R migrations. Center Stage connectivity is not supported on the S8500 Media Server.

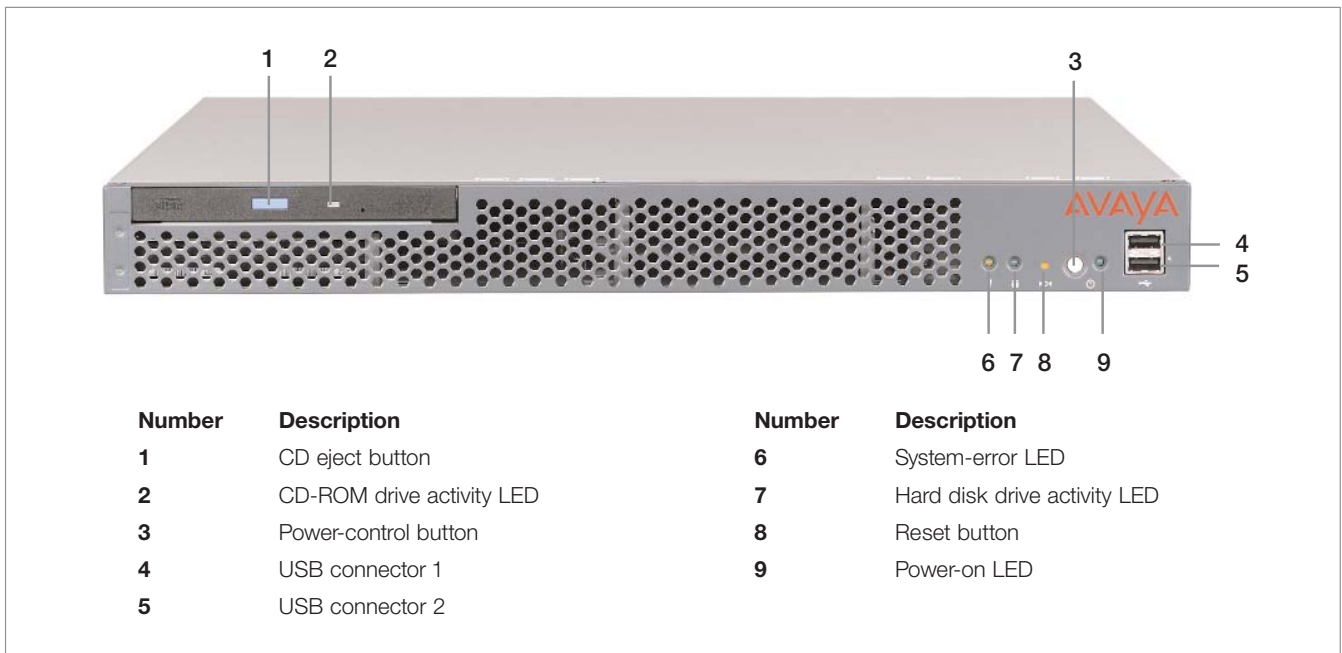
Common to all these gateways is the basic manner used with call control and bearer information. The media gateways provide bearer path facilities for calls; the bearer path may be TDM or IP. The gateways do not provide call control; they require call control from the S8500 Media Server. The S8500 Media Server always provides call control via IP to the gateways. Between media gateways, bearer facilities differ based on the media gateway.

S8500 Media Server

Crane Part: P8500

The Avaya S8500 Media Server is a rack mounted telephony server, running Red Hat Linux 8.0 Operating System, and featuring the Avaya world class call processing application, Communication Manager. The S8500 is capable of supporting both Internet Protocol (IP) and traditional endpoints enabling new technology, and the ease of migration from legacy Avaya systems. The S8500 Media Server is a perfect solution for mid-sized customers, with growth of up to 3200 ports.

Physical description



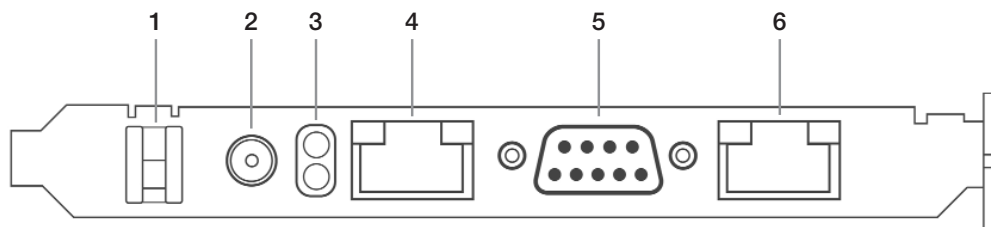
The S8500 Media Server comes standard with the following hardware components:

- Pentium IV 512 KB Level-2 cache and MMX 2
- 512 MB RAM
- IDE CD-ROM
- 40-GB (minimum) hard drive
- Two USB ports
- One serial port
- A keyboard port
- A mouse port
- Two 10/100/1000Base-T Ethernet ports
- A Remote Supervisor Adapter (See below)
- An external Compact Flash Memory Reader
- Compact Flash 120 MB media (optional)
- One USB modem
- One serial modem
- AC powered
- Includes RAM disk.

Remote Supervisor Adapter (RSA)

A Remote Supervisor Adapter (RSA) is installed in PCI-X slot 1 of the S8500 Media Server. It monitors and reports alarms on S8500 components and provides control to power-on and power-off the S8500. Administration of the RSA is accomplished through the Advanced System Management (ASM) Web interface using a browser.

Figure 4: Remote Supervisor Adapter



Number	Description	Number	Description
1	Clip Power cord retaining clip	4	External power-supply connector
2	External power-supply connector	5	Serial connector
3	Power and error LEDs	6	ASM RS-485 RJ-14 connector

G650 Media Gateway

Crane Part: PG650

The Avaya G650 Media Gateway, is a fourteen slot, rack mounted carrier configured for TN format circuit packs. The G650 is 8U high (14 inches (35.6 centimetres)) and mounts in standard 19 inch (48.3 centimetres) data racks. The G650 can use one or two 655A power supplies that can have both AC and DC input power present. Either power supply can provide all the power needed by the G650. When two power supplies exist, they share the power load. One power supply can operate on AC power and the other on DC power. The system will always use AC power if available.

Physical description and configuration

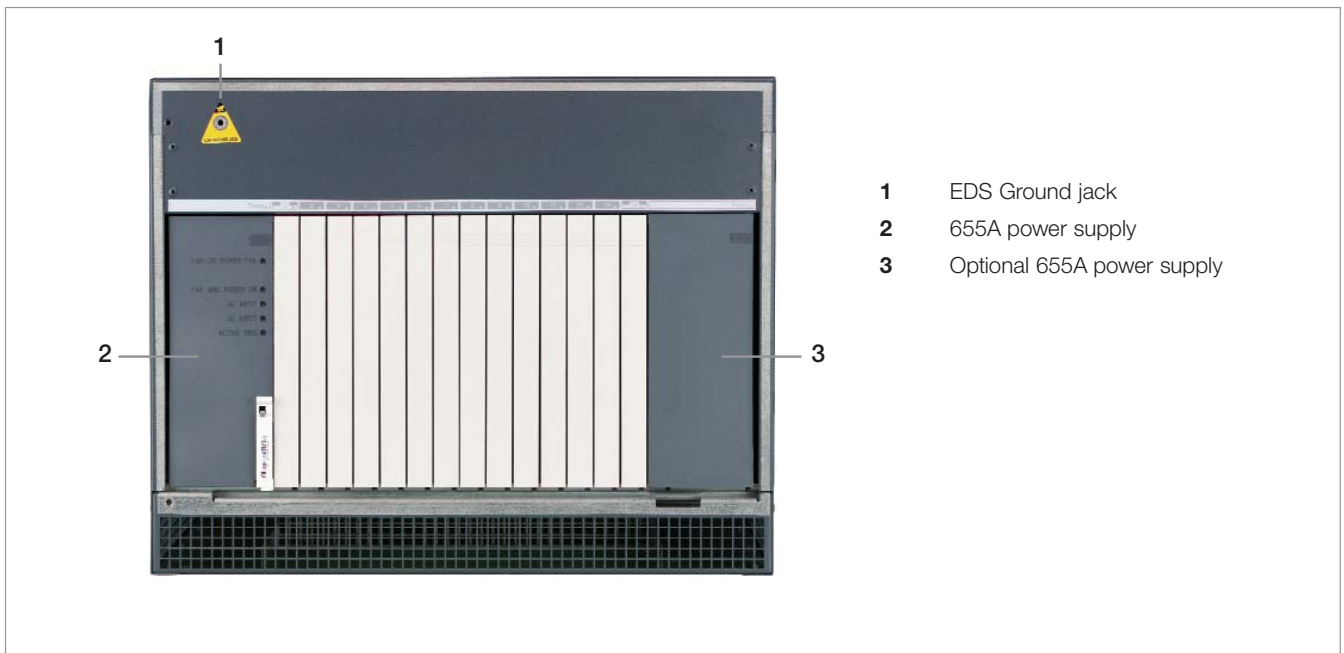




Table 6: Supported circuit packs

Code	Description	Crane Part
TN760E	Tie Trunk (4-wire with 4 ports)	BNP105
TN2215	Analogue Line for Multiple Countries (16 ports)	BNP109
TN2181	DCP Digital Line (2-wire, 16 ports)	BNP111
TN2147C (w/o PP)	Central Office Trunk for Multiple Countries (8 Ports)	BNP112
TN2185B	ISDN-BRI S/T-TE Interface (4-wire, 8 ports)	BNP113
TN2464P	DS1 Interface with Echo Cancellation T1/E1	BNP113
TN556D	ISDN-BRI 4-Wire S/T-NT Interface (12 ports)	BNP114
TN763D	AUX Trunk (4 ports)	BNP118
TN799DP	Control LAN C-LAN Interface	BNP147
TN2501AP	Announcement (VAL) Board	P108A
TN771DP	Maintenance Test	P116
TN744E	Global Call Classifier-Detector (with Tone Detection)	P117
TN2312	IP Server Interface (IPSI)	P2312
TN2302AP	IP Media Processor	P318
TN801B	MAPD (LAN Gateway Interface for CTI, CallVisor, PC/LAN)	BNP148
TN457	Speech Synthesizer for British English	POA
TN553	Packet Data	POA
TN746B	Analogue Line	POA
TN747B	CO Trunk	POA
TN753B	DID Trunk	POA
TN2224CP	Digital Line (2-Wire, 24 Ports)	POA
TN2305B	ATM-CES Trunk/PNC Interface for Multi-Mode Fibre (ATM-CES trunk only)	POA
TN2306B	ATM-CES Trunk/PNC Interface for Single-Mode Fibre (ATM-CES trunk only)	POA
TN2313AP	DS1 Interface (24 Channel)	POA



Table 7: S8500 Capacities

Description	Capacity
Maximum number of stations	2400 (IP or TDM)
Maximum number of trunks	800
Reliability options	Simplex
Maximum number of supported gateways	250
Maximum number of port networks	64 G650
Number of LSP's in one configuration	Maximum of 50
Port networks per IPSI	One



Compatible Avaya Telephones:

Description	Crane Part
IP Telephones	
4601 IP telephone	P4601-G
4602 IP telephone	P625
4602SW IP telephone	P625SW
4610SW IP telephone	P4610SW
4620SW IP telephone	P4620SW-G
4630SW IP telephone	P637SW
IP SoundPoint conference phone	BNP4690
Digital Telephones	
2402 Digital telephone	P667
2420 Digital telephone	P665
6402 Digital telephone	P641
6408D+ Digital telephone	P643
6416D+M Digital telephone	P645
6424D+M Digital telephone	P647
Callmaster IV Digital telephone	P250
Callmaster V Digital telephone	P244
Callmaster VI Digital telephone	P246
302D attendant console	BNP201A
Analogue Telephones	
Avaya analogue basic	P658
Avaya analogue handsfree	P659

S8500/G650 – Crane product bundles

P8500G6 – S8500/G650 Bundle

This basic S8500/G650 Bundle is supplied without a UPS. Please use part code P8500U below to add a UPS to this system bundle.

Bundle Components:

Description	QTY
CP AHF110 BUS TERMINATOR	1
CP TN771DP MAINT/TEST	1
LINUX MEDIA SERVER MODEM	1
CABLES 5 METER CAT 5 RJ45	1
IPSI2 CP TN2312BP	1
S8500 MEDIA SRVR AC PWR	1
CC R 2.0	1
INTGR MGMT 2.0 STD	1
CM2 S8500 SFTW LIC	1
CM2 INTRO OFFER PER USER SFTW LIC	1
CM2 INTL DOC S8300/S8500/S8700	1
COMPACT FLASH READER W/FLSHCRD	1
PWR CORD 98IN UNITED KINGDOM 14012	1
G650 MEDIA GATEWAY	1
SERIAL MODEM	1
LOCALIZATION KIT UK	1
CM2.0.1 LINUX UNITY SFTW CD W/RTU	1
CABLE ASSY DT B25A	1

Please note that the above bundle includes one CM2 user software license. Please see the Tell me how section in this product guide to order additional software licenses.



P8500U – Add-on UPS Bundle

Use this bundle to add a UPS to the P8500G6 system bundle.

Bundle Components:

Description	QTY
PWR UPS 4-POST RACK KIT	1
S9RM MODEL 1000VA 230V W/SNMP	1

PG650GC – G650 Growth Cabinet

Use this bundle to add an additional G650 cabinet to an existing S8500/G650 system

Bundle Components:

Description	QTY
PWR CORD 98IN UNITED KINGDOM 14012	1
G650 MEDIA GATEWAY	1
G600/G650 TDM LAN CABLE KIT	1
CABLE ASSY DT B25A	14

P6010CM2 – esIP Enterprise 300 (S8500/G650 Bundle)

The esIP Enterprise 300 is an excellent starter bundle providing significant discount on the normal RRP

Bundle Components:

Description	QTY
DEF DS1 CABLE	1
CP AHF110 BUS TERMINATOR	2
CP TN771DP MAINT/TEST	1
CP TN2464BP DS1 INTFC 24/32	1
CP TN2302 IP MEDIA PROC	1
CP C-LAN INTF TN799	1
LINUX MEDIA SERVER MODEM	1
CABLES 5 METER CAT 5 RJ45	3
IPS12 CP TN2312BP	1
S8500 MEDIA SRVR AC PWR	1
CC R 2.0	1
CC INTRODUCTORY OFFER 40AGT	1
CM2 S8500 SFTW LIC	1
CM2 ENTERPRISE INTRO PER USER SFTW LIC	200
CM2 ENTERPRISE EDITION PER USER SFTW LIC	100
CM2 TDM TRUNK PORT SFTW LIC	30
INTGR MGMT 2.0 ENH 1 CM SYS	1
CM2 INTL DOC S8300/S8500/S8700	1
COMPACT FLASH READER W/FLSHCRD	1
PWR CORD 98IN UNITED KINGDOM 14012	3
PWR UPS 4-POST RACK KIT	1
G650 MEDIA GATEWAY	1
SERIAL MODEM	1
LOCALIZATION KIT UK	1
S9RM MODEL 1000VA 230V W/SNMP	1
CM2.0.1 LINUX UNITY SFTW CD W/RTU	1
CABLE ASSY DT B25A	15

Please see the Tell Me How section in this product guide to order additional software licenses.

Telephony Media Modules

MM711 Analogue Media Module

Crane Part: P83ACP

The MM711 provides analogue trunk and telephone features and functionality.

The eight ports can be configured as follows:

- Central office trunk, either loop start or ground start.
- Analogue Direct Inward Dialling (DID) trunks, either wink start or immediate start.
- 2-wire analogue Outgoing CAMA E911 trunks for connectivity to the PSTN.
- MF signalling is supported for CAMA ports.
- Analogue, tip/ring devices, such as single-line telephones with or without LED message waiting indication.

The MM711 also supports:

- Three ringer loads (ringer equivalency number) for up to 2000 feet for all eight ports
- Up to eight simultaneously-ringing ports

NOTE: The media gateway achieves this number of ports by staggering the ringing and pauses between two sets of up to four ports.

- Type 1 and Type 2 Caller ID.
- Ring voltage generation for a variety of international frequencies and cadences

Figure 1: MM711



MM714 Analogue Media Module

POA

The MM714 analogue media module provides up to four analogue telephone ports and four analogue trunk ports.

Figure 2: MM714



MM312 DCP Media Module

Crane Part : PM312

The MM312 DCP media module provides 24 Digital Communications Protocol (DCP) ports with RJ-45 jacks. The MM312 supports simultaneous operation of all 24 ports. Each port can be connected to a two-wire DCP telephone.

The MM312 does not support four-wire DCP telephones

Figure 3: MM312



MM712 DCP Media Module

Crane Part : P83DCP

The MM712 DCP media module provides eight DCP telephone ports. The ports support two-wire Digital Communications Protocol (DCP) telephones.

Figure 4: MM712



MM717 24-port DCP Media Module

Crane Part : PM717 (BNPM717 Includes Amphenol Connector)

The MM717 provides 24 digital lines in the Media Module form factor through a single 25-pair amphenol connector. This card increases the capacity of the G350/G700 media gateways by providing the same number of DCP ports as three 8-port DCP modules.

MM710 E1/T1 Media Module

Crane Part : PM312

The MM710 T1/E1 media module terminates a T1 or E1 trunk. The MM710 has a built-in Channel Service Unit (CSU) so an external CSU is not necessary. The CSU is only used for the T1 circuit.

The MM710 features:

- ISDN PRI capability (23B + D or 30B + D).
- Trunk signalling to support US and International CO or tie trunks.
- Echo cancellation in either direction.

Figure 5: MM710



MM720 BRI Media Module

Crane Part : P83BRI

The MM720 BRI media module contains eight ports that interface with the central office at the ISDN T reference point. On each port, information is communicated in two ways:

- Over two 64 Kb channels called B1 and B2 that can be circuit switched simultaneously.
- Over a 16 Kb channel called the D channel that is used for signaling and occupies one time slot for all eight D channels.

The circuit switched connections have a u-law or A-law option for voice operation.

Figure 6: MM720



MM722 BRI Media Module

POA

The MM722 BRI media module provides two 4 wire S/T ISDN BRI (Basic Rate Interface) 2B+D access ports with RJ-45 jacks. Each port interfaces to the central office at the ISDN T reference point.

Information is communicated in the same manner as for the MM720.

Figure 7: MM722



MM760 VoIP Media Module

Crane Part : P83VOIP

The MM760 is a clone of the S8300 motherboard VoIP engine. The MM760 provides an additional 64 VoIP channels with G.711 compression.

The capacity is 64 G.711 TDM/IP simultaneous calls, or 32 compression codec, G.729 or G.723, TDM/IP simultaneous calls. These call types can be mixed on the same resource; in other words, the simultaneous call capacity of the resource is 64 G.711 equivalent calls.

Figure 8: MM760



WAN Media Modules

MM340 E1/T1 WAN Media Module

POA

The MM340 E1/T1 WAN media module provides a WAN access port for the connection of an E1 or T1 WAN.

Figure 9: MM340



MM342 USP WAN Media Module

POA

The MM342 media module provides one USP WAN access port. MM342 supports the following WAN protocols:

- V.35/ RS449
- X.21

For these connections, one of the following cables is necessary:

- Avaya Serial Cable DTE V.35 (USP to V.35)
- Avaya Serial Cable DTE X.21 (USP to X.21)

Figure 10: MM342



LAN Media Modules

MM314 LAN Media Module

Crane Part : PM314

The MM314 LAN media module provides:

- 24 Ethernet 10/100 Base-T Ethernet access ports with inline Power over Ethernet (PoE).
- One Gigabit Ethernet Small Form-Factor Pluggable (SFP) GigaBit Interface Converter (GBIC) slot which supports any of the following SFP GBICs:
 - 1000-SX, 1000-LX, 1000-ELX or 1000-TX.

The MM314 supports 48V DC inline power provided over standard category 5 UTP cables (up to 100m range) on each PoE port.

The MM314 features:

- Priority power budgeting with configurable priorities
- Automatic load detection on ports
- Automatic device discovery
- Enable/disable port powering option
- Port monitoring
- Automatic recovery from overload shutdown
- Automatic recovery from no-load shutdown

Figure 11: MM314



tell me how?

This section contains answers to your common configuration questions. Use this section to add features to the product bundles listed in this document.

All the listed Crane product codes are 'off the shelf items' and should therefore be available from stock.

MultiVantage Generic

How do I add user licenses?

Users may be added to a MultiVantage (CM2 or later) system using the following part codes:

P852CM2	Intro Offer Per Extension Software License Use this part code for the initial 200 licenses. This part can only be purchased as part of a new system order and is not valid for expansion.
P853CM2	Per Extension Software License Use this part code for additional licenses beyond the initial offer above or when adding licenses to an existing system.
P855CM2	Enterprise Intro Per Extension Software License Use this part code for the initial 200 Enterprise licenses. This part can only be purchased as part of a new system order and is not valid for expansion.
P856CM2	Enterprise Per Extension Software License Use this part code for additional licenses beyond the initial Enterprise offer above or when adding licenses to an existing system.

Starting with Communication Manager 2.0, software will be charged on a Per User basis, not on a Per Port basis. User licenses will be sold as 'Universal Licenses'. This means that when a customer purchases a new license of Communication Manager or Communication Manager Enterprise Edition, it can be used for any type of endpoint, whether it is an Analog, Digital or IP.

How do I add TDM trunk licenses?

Trunk licenses may be added using the following part code:

P854CM2	Trunk Port Software License
---------	-----------------------------

TDM trunks are defined as analogue or ISDN trunk ports



How do I add IP trunks?

10 IP Trunks come with Communication Manager, and the **maximum** IP Trunks for any given platform come with Communication Manager Enterprise Edition.

If you wish to add more than 10 IP trunks to a platform you will need to migrate to Communication Manager Enterprise Edition.

How do I add IP stations?

IP stations are now part of the universal user license. This means that when a customer purchases a new license of Communication Manager or Communication Manager Enterprise Edition, it can be used for any type of endpoint, whether it is an Analogue, Digital or IP.

How do I add Call Centre users?

Please make use of the Call Centre Calculator which can be downloaded from the Partner KnowledgeBase.

Please visit www.cranetel.co.uk

How do I add a new Call Centre?

Please make use of the Call Centre Calculator which can be downloaded from the Partner KnowledgeBase.

Please visit www.cranetel.co.uk

How do I add a IP softphone to my MultiVantage system?

To add a IP softphone to a MV system use the following part code:

P663D	IP Softphone R5 RTU
-------	---------------------

And one of the following licenses per softphone

P852CM2	Intro Offer Per Extension Software License Use this part code for the initial 200 licenses. This part can only be purchased as part of a new system order and is not valid for expansion.
P853CM2	Per Extension Software License Use this part code for additional licenses beyond the initial offer above or when adding licenses to an existing system.
P855CM2	Enterprise Intro Per Extension Software License Use this part code for the initial 200 Enterprise licenses. This part can only be purchased as part of a new system order and is not valid for expansion.
P856CM2	Enterprise Per Extension Software License Use this part code for additional licenses beyond the initial Enterprise offer above or when adding licenses to an existing system.

To purchase a copy of the R5 software on CD-ROM use the following code:

P663C	IP Softphone R5 CD-ROM
-------	------------------------

System Specific S8300/G350



How do I add additional VoIP resource to my 8300/G350?

The G350 supports a maximum of 40 users. The S8300 media server is more than capable of supporting this number of users without the need for additional VoIP resource.

How do I add an E1 interface?

An E1 interface may be added to a G350 system using the following part codes:

P83E1	MM710 E1 ISDN PRI Trunk Media Module
P854CM2	Trunk Port Software License (Purchase one per required ISDN channel)

How do I add a BRI interface?

A BRI interface may be added to a G350 system using the following part codes:

P83BRI	MM720 8 ISDN BRI Trunk ports
P854CM2	Trunk Port Software License (Purchase one per required ISDN channel (minimum of two))

How do I add an analogue endpoint (telephone) to my G350 system?

To add analogue endpoints to a G350 system purchase the following part codes:

P83ACP	MM711 8 universal analogue ports (supports 8 analogue endpoints)
--------	--

And one of the following licenses per endpoint

P852CM2	Intro Offer Per Extension Software License Use this part code for the initial 200 licenses. This part can only be purchased as part of a new system order and is not valid for expansion.
P853CM2	Per Extension Software License Use this part code for additional licenses beyond the initial offer above or when adding licenses to an existing system.
P855CM2	Enterprise Intro Per Extension Software License Use this part code for the initial 200 Enterprise licenses. This part can only be purchased as part of a new system order and is not valid for expansion.
P856CM2	Enterprise Per Extension Software License Use this part code for additional licenses beyond the initial Enterprise offer above or when adding licenses to an existing system.



How do I add an IP endpoint (IP Telephone) to my G350 system?

To add IP endpoints (IP Telephone) to a G350 system purchase a compatible handset and one of the following universal software licenses:

P852CM2	Intro Offer Per Extension Software License Use this part code for the initial 200 licenses. This part can only be purchased as part of a new system order and is not valid for expansion.
P853CM2	Per Extension Software License Use this part code for additional licenses beyond the initial offer above or when adding licenses to an existing system.
P855CM2	Enterprise Intro Per Extension Software License Use this part code for the initial 200 Enterprise licenses. This part can only be purchased as part of a new system order and is not valid for expansion.
P856CM2	Enterprise Per Extension Software License Use this part code for additional licenses beyond the initial Enterprise offer above or when adding licenses to an existing system.

S8300/G700



How do I add additional VoIP resource to my S8300/G700?

To add additional VoIP resource to an existing S8300/G700 system use the following code:

P83VoIP	MM760 64 channel VoIP G711 Media Module
---------	---

How do I add an E1 interface?

An E1 interface may be added to an S8300/G700 system using the following part codes:

P83E1	MM710 E1 ISDN PRI Trunk Media Module
P854CM2	Trunk Port Software License (Purchase one per required ISDN channel)

How do I add a BRI interface?

A BRI interface may be added to an S8300/G700 system using the following part codes:

P83BRI	MM720 8 ISDN BRI Trunk ports
P854CM2	Trunk Port Software License (Purchase one per required ISDN channel (minimum of two))

How do I add an analogue endpoint (telephone) to my S8300/G700 system?

To add analogue endpoints to an S8300/G700 system purchase the following part codes:

P83ACP	MM711 8 universal analogue ports (supports 8 analogue endpoints)
--------	--

And one of the following licenses per endpoint

P855CM2	Enterprise Intro Per Extension Software License Use this part code for the initial 200 Enterprise licenses. This part can only be purchased as part of a new system order and is not valid for expansion.
P856CM2	Enterprise Per Extension Software License Use this part code for additional licenses beyond the initial Enterprise offer above or when adding licenses to an existing system.

Note: Only Enterprise licensing may be used on a S8300/G700 system.

How do I add an IP endpoint (IP Telephone/Softphone) to my S8300/G700 system?

To add IP endpoints (IP Telephone/Softphone) to an S8300/G700 system purchase a compatible handset and one of the following universal software licenses:

P855CM2	Enterprise Intro Per Extension Software License Use this part code for the initial 200 Enterprise licenses. This part can only be purchased as part of a new system order and is not valid for expansion.
P856CM2	Enterprise Per Extension Software License Use this part code for additional licenses beyond the initial Enterprise offer above or when adding licenses to an existing system.

Note: Only Enterprise licensing may be used on an S8300/G700 system.

How do I add additional IA770 client licenses?

To add additional IA770 client licenses please use the following code per required license:

PIA770U	IA770 Client Application Licence 1 SGL site vmail
---------	---

S8500/G650

How do I make my S8500/G650 VoIP ready?

To add VoIP to a S8500/G650 system use the following part codes:



P318	TN2302 IP Media Processor
BNP147	TN799 CLAN circuit pack bundle (includes 356A Adaptor)

And one of the following licenses per IP endpoint

P852CM2	Intro Offer Per Extension Software License Use this part code for the initial 200 licenses. This part can only be purchased as part of a new system order and is not valid for expansion.
P853CM2	Per Extension Software License Use this part code for additional licenses beyond the initial offer above or when adding licenses to an existing system.
P855CM2	Enterprise Intro Per Extension Software License Use this part code for the initial 200 Enterprise licenses. This part can only be purchased as part of a new system order and is not valid for expansion.
P856CM2	Enterprise Per Extension Software License Use this part code for additional licenses beyond the initial Enterprise offer above or when adding licenses to an existing system.

How do I add additional VoIP resource to my S8500/G650?

To add additional VoIP resource to an existing S8500/G650 system use the following codes:

P318	TN2302 IP Media Processor
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Note: In some cases it may be necessary to add additional C-LAN circuit packs. Please consult your Pre-Sales team for more details.

How do I add an E1 trunk interface?

To add an E1 interface to an S8500/G650 system use the following part code:

BNP113	TN2464 DS1 circuit pack (includes adaptor and lead)
--------	---

How do I add a BRI trunk interface?

To add a BRI trunk interface to an S8500/G650 system use the following part code:

BNP133	TN2185 8 port BRI trunk circuit pack (includes lead)
--------	--



How do I add a BRI station interface?

To add a BRI station interface to an S8500/G650 system use the following part code:

BNP114	TN556 12 port BRI station circuit pack (includes lead)
--------	--

And one of the following licenses per endpoint

P852CM2	Intro Offer Per Extension Software License Use this part code for the initial 200 licenses. This part can only be purchased as part of a new system order and is not valid for expansion.
P853CM2	Per Extension Software License Use this part code for additional licenses beyond the initial offer above or when adding licenses to an existing system.
P855CM2	Enterprise Intro Per Extension Software License Use this part code for the initial 200 Enterprise licenses. This part can only be purchased as part of a new system order and is not valid for expansion.
P856CM2	Enterprise Per Extension Software License Use this part code for additional licenses beyond the initial Enterprise offer above or when adding licenses to an existing system.

How do I add a digital station interface?

To add a digital station interface to an S8500/G650 system use the following part code:

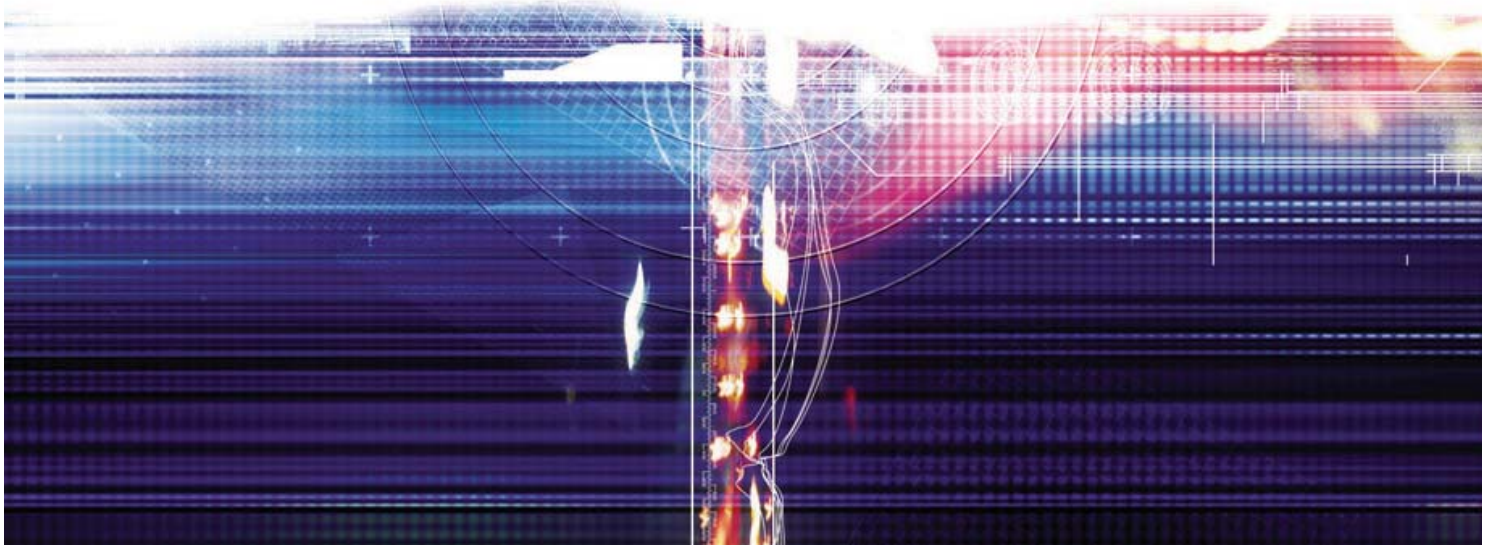
BNP024	TN2214 24 port two wire DCP
--------	-----------------------------

And one of the following licenses per endpoint

P852CM2	Intro Offer Per Extension Software License Use this part code for the initial 200 licenses. This part can only be purchased as part of a new system order and is not valid for expansion.
P853CM2	Per Extension Software License Use this part code for additional licenses beyond the initial offer above or when adding licenses to an existing system.
P855CM2	Enterprise Intro Per Extension Software License Use this part code for the initial 200 Enterprise licenses. This part can only be purchased as part of a new system order and is not valid for expansion.
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